PEACE/WILLISTON
FISH & WILDLIFE
COMPENSATION
PROGRAM

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Wildlife Program
Annual Report 1996/97

M. D. Wood
1997

PWFWCP Report No. 126

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The Peace/Williston Fish & Wildlife Compensation Program is a cooperative venture of BC Hydro and the provincial fish and wildlife management agencies, supported by funding from BC Hydro. The Program was established to enhance and protect fish and wildlife resources affected by the construction of the W.A.C. Bennett and Peace Canyon dams on the Peace River, and the subsequent creation of the Williston and Dinosaur Reservoirs.

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This report has been approved by the Peace/Williston Fish and Wildlife Compensation Program Fish Technical Committee.

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PEACE/WILLISTON FISH AND WILDLIFE COMPENSATION PROGRAM

WILDLIFE PROGRAM ANNUAL REPORT 1996/97

STEERING COMMITTEE MEMBERS:

Ted Down (B.C. Environment) - Chairman
Ron Fernandas (B.C. Hydro)
Colin Gurnsey (B.C. Hydro)
Al Sanderson (B.C. Environment)

TECHNICAL COMMITTEE MEMBERS:

Ed Hill (B.C. Hydro) - Chairman
Alan Chan-McLeod (B.C. Hydro)
John Elliott (B.C. Environment)
Doug Heard (B.C. Environment)

PROGRAM WILDLIFE BIOLOGISTS:

Mari Wood (B.C. Hydro) - Program Biologist
Fraser Corbould (B.C. Hydro)

PROGRAM ADMINISTRATION

At the beginning of the fiscal year 1996/97, administrative responsibility for the Peace/Williston Fish and Wildlife Compensation Program (PWFWCP) was transferred from Corporate Safety and Environment in Burnaby, to Power Supply (Peace River Generation) in Hudson's Hope. Mari Wood and Fraser Corbould continued as the full-time wildlife biologists responsible for administering, managing and conducting research and enhancement projects within the Wildlife Section of the PWFWCP. Administrative activities included preparation of the 1995/96 Annual Report (Wood and Corbould 1997), project accounting, and contract management. Various consulting firms, contractors and individuals were employed to undertake work on a variety of projects, and two co-operative education students were hired to assist summer field projects. Membership on the Steering Committee and the Wildlife Technical Committee remained the same as in 1995/96.

PROGRAM PLANNING

One meeting and two conference calls were held with the Wildlife Technical Committee to discuss the current years' projects and finances, and prepare a budget for the 1997/98 Wildlife Program. Funding proposals were prepared and submitted to the Habitat Conservation Trust Fund and Forest Renewal B.C. for financial assistance with the Fisher Habitat Use, Ingenika Prescribed Burn, and Reservoir Raptor Projects for 1997/98. The logistics and co-ordination of future co-operative projects were discussed with co-operative agencies including: Interior Grizzly Bear Research Project (Wildlife Research Branch, BC Environment, Victoria), and Rocky Marsh and Coplin Creek wetlands enhancement projects (Ducks Unlimited, BC Environment). Informal meetings were held with individuals, consultants, and stakeholder representatives, to discuss on-going and potential future projects.

PUBLIC CONSULTATION

A display on the PWFWCP Wildlife Program was prepared and exhibited at the Northern Forest Products Association convention in Prince George. A slide presentation on the recent progress and future direction of the Wildlife Program was delivered to the Peace/Williston Advisory Committee. A request from the Mackenzie Land and Resource Management Planning (LRMP) team for information on woodland caribou was honoured with a slide presentation on the results of the Omineca Caribou Study. The Wildlife Program and specific projects were discussed through informal meetings and talks with industry, club members, guide-outfitters, trappers, contractors, students and tourists.

NatureLine No. 8, and three *Information Bulletins* detailing specific wildlife projects were prepared at the end of the fiscal year. Information on the PWFWCP was provided to BC Outdoors, and a two-page article detailing the program mandate and specific wildlife projects appeared in the May 1995 issue. An article on the Ingenika River elk transplant appeared in the Summer 1996 issue of *Bugle,* a publication of the Rocky Mountain Elk Foundation. Information on PWFWCP wildlife projects was provided to BCH tour guides at the GMS Generating Station, and to BCH Public Affairs for inclusion in the 1995/96 Environment Annual Report. Reports and photographs on the Donna Creek Forestry/Biodiversity Project were provided to instructors delivering the Stand Level Biodiversity, and Wildlife/Danger Tree Assessment courses throughout BC. Project information and reports were also discussed and provided to numerous consultants, interest groups and individuals, including biologists and researchers throughout Western Canada.

PROJECT SUMMARY

PROJECT	TYPE	LOCATION
PWFWCP PROJECTS:		
1. Fisher Habitat Use Project	Inventory	Omineca
2. Omineca Mountains Caribou Project	Inventory	Omineca
3. Reservoir Raptor Project	Inventory	Reservoir watershed
4. Winter Range Prescribed Burning	Enhancement	Finlay
5. Neilson Lake Wetlands Enhancements	Enhance/PC	Parsnip
6. Donna Creek Forestry/Biodiversity Project	Monitoring	Omineca
7. Ingenika River Elk Transplant	Monitoring	Finlay
**CO-OPERATIVE PROJECTS:*		
8. Wolverine Ecology Research	Inventory	Omineca
9. Mackenzie Migratory Songbird Monitoring	Inventory/PC	Mackenzie
10. Anzac Moose Enhance (Diversionary Feeding)	Enhancement	Parsnip

* "Co-operative Projects" are administered by other agencies. PWFWCP co-operates on these projects by contributing a limited amount of funding and/or technical expertise.

Abbreviations used for Agencies/Clubs:

BCE: B.C. Environment
CWS: Canadian Wildlife Service
DU: Ducks Unlimited
FFI: Finlay Forest Industries
FRBC: Forest Renewal B.C.
HCTF: Habitat Conservation Trust Fund
MFGC: Mackenzie Fish and Game Club
MOF: Ministry of Forests
PWFWCP: Peace/Williston Fish & Wildlife Compensation Program
SCWA: Spruce City Wildlife Association
TW: TimberWest Ltd.

INVENTORY/ASSESSMENT PROJECTS

1. FISHER HABITAT USE PROJECT

Objective: To obtain a better understanding of fisher ecology and population dynamics in the northern boreal forest in order to design and implement future enhancement and protection activities. [PWFWCP, FRBC, BCE, TW, FFI]

96/97 (Year 2/6): Additional funding was received from FRBC, and a detailed 5 year working plan for the project was drafted. A permanent field camp was established at Mesilinka, and traplines were established and monitored. Ten fisher were captured and radio-collared over the winter, and their movements and habitat use monitored using fixed-wing aircraft. Continued funding from FRBC was pursued for the 1997/98 fiscal year.

2. OMINECA MOUNTAINS CARIBOU PROJECT

Objectives: To determine seasonal habitat use and movements of woodland caribou on the west side of the Williston Reservoir, and to protect caribou and caribou habitat through 1) the development of a caribou/forest harvesting strategy, 2) input to the Mackenzie LRMP table, and 3) input to the Protected Areas initiative.

96/97 (Year 6/7):. Fixed-wing telemetry flights to monitor radio-collared caribou were conducted weekly during spring, calving, and winter periods. Intensive monitoring took place during the calving period to document calf production. Work continued on the analysis of telemetry data from Phase 1, while data from Phase 2 (latter three years) was entered into a database in preparation for analysis. A report prepared on the first two years of the study was published in the scientific journal *Rangifer.* Details of the caribou study were presented to the Mackenzie District LRMP (Land and Resource Management Planning team), to aid them in making land use decisions specifically related to caribou habitat and forest harvesting.

3. RESERVOIR RAPTOR PROJECT

Objectives: To determine the population status and nesting distribution of bald eagles and osprey around the Williston and Dinosaur Reservoirs and their major tributary systems, and to identify, design and implement enhancement projects if necessary.

96/97 (Year 2/6): Data from the 1995 eagle and osprey nesting surveys were analyzed and a report prepared. A survey of the major tributaries of the Williston Reservoir was conducted in March 1997 to document locations of eagle and osprey nests. A proposal for additional project funding was submitted to HCTF for the 1997/98 fiscal.

ENHANCEMENT PROJECTS

4. WINTER RANGE PRESCRIBED BURNING

Objectives: To enhance forage for ungulates and bears, and to provide foraging and breeding habitat for many wildlife species that require early successional stages. [PWFWCP, BCE, MOF]

96/97: Additional funding was received from HCTF to conduct a prescribed burn along the Ingenika River. A site inspection took place in the spring; the burn was postponed due to weather conditions, and newly identified requirements imposed by the Forest Service. These requirments included the submission of a Five Year Prescribed Burn Plan, and incorporation of specific Ingenika site objectives into other higher level plans (eg. Landscape Unit Objectives and MOF's Fire Management Plan). A proposal was submitted again to HCTF for funding in the 1997/98 fiscal. A Five Year Prescribed Burn Plan for the Mackenzie Forest District was drafted, and all previously conducted burns were mapped using GIS. Vegetation monitoring was conducted on the Pelly Lake 1993 prescribed burn.

5. NEILSON LAKE WETLANDS ENHANCEMENT

Objectives: To enhance the Neilson Lake wetland area (adjacent to Summit Lake) for waterfowl and aquatic furbearers by providing stable water levels and increasing waterfowl breeding and rearing habitat. [PWFWCP, DU]

96/97 (Yr 2/3): A Section 1 2 Map Reserve (special wildlife management) for Neilson Lake and the surrounding area was obtained. Four hundred metres of level ditching was conducted adjacent to Neilson Lake to create additional nesting area for waterfowl, and provide passage for aquatic furbearers. A sign detailing the enhancements was developed; the sign will be installed on the site in the spring of 1997. Previous wetlands enhancements were also monitored.

MONITORING/EVALUATION PROJECTS

6. DONNA CREEK FORESTRY/BIODIVERSITY PROJECT

Objective: To develop and test alternative forest harvesting techniques designed to benefit cavity-dependent birds and mammals. [PWFWCP, HCTF, TW]

96/97 (Yr 7/8): Additional funding from HCTF was received. Breeding bird surveys and nest searches were conducted in the spring, and stub, island blowdown, and vegetation assessments were conducted over the summer. Data from the latter three were entered into a database for correlation with breeding bird data, and two reports were prepared. Precise locations of habitat features were obtained using GPS, and detailed maps of the study blocks were produced.

7. INGENIKA RIVER ELK TRANSPLANT

Objective: To supplement the small existing herd of Rocky Mountain elk in the Ingenika River drainage and establish a viable population of elk in the area.

96/97 (Yr 2/5): Last year, 50 elk were transplanted to the grassy slopes on the north side of the Ingenika River. Four tracking flights were conducted in spring, summer, fall, and winter, to monitor survival and dispersal of the ten radio-collared female elk. Three of the ten females died of various natural causes.

CO-OPERATIVE PROJECTS:

* These projects are administered by other agencies PWFWCP co-operates on these projects by contributing a limited amount of funding and/or technical expertise.

8. WOLVERINE ECOLOGY RESEARCH

Objectives: To determine the seasonal habitat use, movements, and population characteristics of wolverine in the northern boreal forest, and to direct future enhancement and protection activities with a better understanding of wolverine ecology. [BCE, FRBC, TW, FFI, PWFWCP]

96/97 (Yr 2/6): Traplines were established and monitored throughout the winter, and eighteen wolverine were captured and radio-collared. The PWFWCP assisted with trapping and radio-tracking of collared wolverines in conjunction with the Fisher Habitat Use Project (project #1).

9. MACKENZIE MIGRATORY SONGBIRD MONITORING

Objectives: To determine the population status and trends of neotropical migratory songbird populations in the northern Rocky Mountain Trench , and to identify those species that may be at risk from habitat loss and degradation. This is a long-term initiative of the Canadian Wildlife Service to monitor trends of songbird populations throughout North America. [CWS, MFGCj,. TW, FFI, PWFWCP]

96/97 (Yr 3 of ongoing): One banding station near Mackenzie was re-established, and two master banders were hired. Birds were captured in mist-nets, banded, and released throughout the fall migration period (August/September). The master banders were assisted by volunteers from the Mackenzie Fish and Game Club on a regular basis. The PWFWCP provided funding at the end of last fiscal (95/96) for the hiring of one of the master banders, and also assisted with banding for a short period.

10. ANZAC MOOSE ENHANCEMENT

Objective: To enhance moose populations in the Parsnip drainage by limiting bear predation on newborn moose calves. [BCE, HCTF, SPWA, PWFWCP]

96/97 (Yr 2/3): In spring, bait stations comprised of road-killed ungulates were established to divert predators away from moose calving areas. Radio-collared cow moose were monitored throughout the year to determine calf survival, and age/sex composition surveys were conducted in winter. Road and train-killed ungulates were collected again throughout the winter, and carcasses were kept frozen in freezer units for the next spring. The PWFWCP provided funding for the project, and assisted with establishing bait stations in the spring.

FINANCIAL SUMMARY

Wildlife Program expenditures during the 1996/97 fiscal totalled $373,510 of which 81% ($302,778) was used to conduct wildlife research and enhancement projects, while 19% ($70,732) covered administrative, planning and public consultation costs (Figure 1, Table 1).

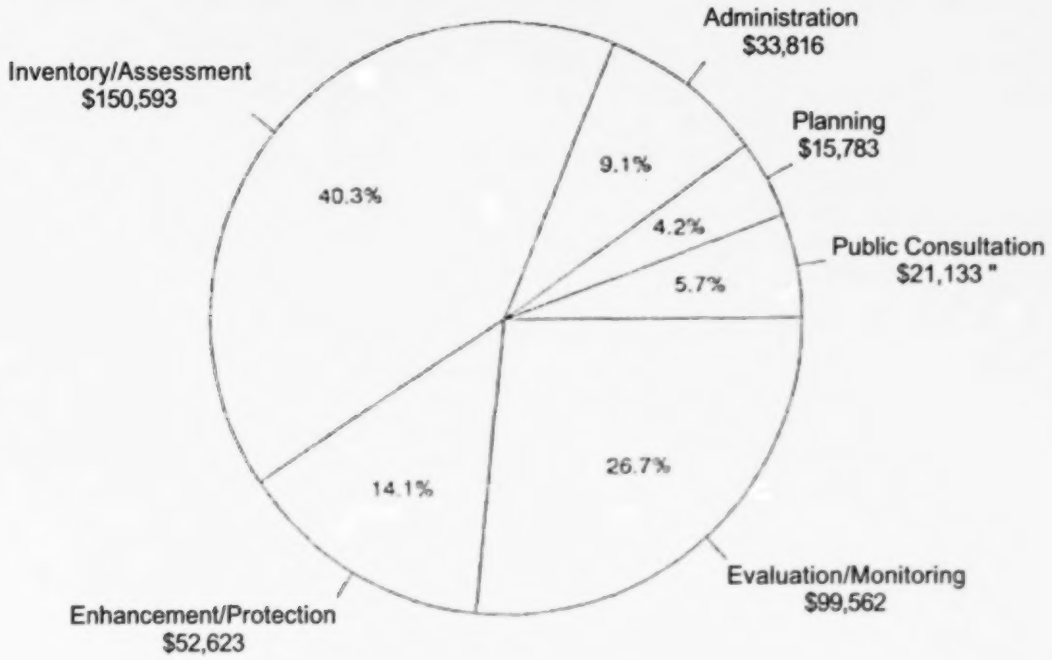

Figure 1. Wildlife Program expenditures for the 1996/97 fiscal year.

Monies expended within the six cost categories varied from that originally budgeted due to the cancellation of some tasks, and addition of others. The following tasks were not completed during the 1996/97 fiscal and resulted in cost savings:

- Planning - Strategic Umbrella Document: postponed until 1997/98 fiscal
- Planning - Technical Committee Travel: fewer meetings required than planned
- Public Consultation - Stakeholder/Public meetings: due to time constraints for Public Affairs staff
- Enhancement - Ingenika Burn: cancelled due to Forest Service requirements & weather
- Monitoring - Donna Creek: cancelled furbearer surveys due to ineffectiveness

The available staff time and funds resulting from the cancellation of these tasks enabled the following to be completed:

- Inventory - winter surveys of the major rivers to document raptor nest locations
- Inventory - contract assistance for caribou telemetry data entry and analysis
- Enhancement - development of a Five Year Prescribed Burn Plan for the Mackenzie District
- Enhancement - GIS mapping of all previous prescribed burns conducted in the watershed
- Monitoring - contract assistance for vegetation monitoring at Pelly prescribed burn
- Monitoring - additional co-op student time for stub and vegetation monitoring

Table 1. Detailed budget expenditures for the 1996/97 fiscal.

COST CATEGORY	SPECIFIC PROJECT	PROJECT COSTS	TOTAL EXPENDED	% Expended	% Budgeted
Administration[1]			$33,816	9.0%	10.1%
Planning[2]			$15,783	4.2%	8.5%
Public Consultation	Base Costs[3]	$13,675			
	Neilson Lake Viewing Sign	$5,104			
	Co-op: Mackenzie Migratory Bird	$2,354	$21,133	5.7%	8.3%
Inventory/ Assessment	Fisher Habitat Use Project	$50,036			
	Omineca Mtns Caribou Project	$55,266			
	Reservoir Raptor Project	$36,378			
	Co-operative Projects	$5,471			
	Other[4]	$3,442	$150,593	40.3%	28.0%
Enhancement/ Protection	Forage Enhancement - Finlay	$19,946			
	Neilson Lake Wetlands	$10,005			
	Omineca Caribou Protection	$4,536			
	Co-op: Anzac Moose Enhance	$17,499			
	Other[4]	$637	$52,623	14.1%	16.2%
Evaluation/ Monitoring	Donna Cr. Forestry/Biodiversity	$73,321			
	Ingenika Elk Transplant	$8,758			
	Wetlands Monitoring	$7,378			
	Prescribed Burn Monitoring	$8,929			
	Other[4]	$1,176	$99,562	26.7%	20.5%
TOTAL			**$373,510**	**100%**	**100%**

1. Administration: staff wages, office rent, BCE administrative support, office supplies, vehicle costs
2. Planning: staff wages & travel, Technical Committee travel, vehicle costs
3. Public Consultation: staff wages & travel, *NatureLine* production, supplies, services, vehicle costs
4. Other: backlog report writing and habitat mapping